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ABSTRACT

Social cognitive theory suggests that individuals' beliefs about their efficacy in specific contexts, such as school, influence their motivation in those settings. The relationship between various sociocultural factors and the development of adolescents' perceived academic self-efficacy are investigated in this paper. Participants (N=202), drawn from grades 7 and 10 at a rural secondary school in an island community, completed several measures of self-efficacy. Students also answered open-ended questions about grades in school, career expectations, and how they thought they were viewed by parents, peers, and teachers. The students' responses were compared to those of mainland students and analysis suggested that the island students reported lower perceived self-efficacy for academic achievement in all academic domains, except biology. This exception could be explained by the fact that the students' rural island lifestyle made them more familiar and thus more comfortable with plants and animals. Results indicate that being male and being a native islander was associated with lower self-efficacy for self-regulated learning. It is suggested that the sociocultural context provides different information to native boys and girls regarding their performances at home and at school. (RJM)

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Culture, Gender, and the Development of Perceived Academic Self-Efficacy Among Hawaiian Adolescents

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Abstract

This study investigated the relationship between various sociocultural factors and the development of adolescents' perceived academic self-efficacy. According to social cognitive theory (e.g., Bandura, 1986), individuals' beliefs about their efficacy in specific contexts influence their motivation in school. The specific ways in which multiple social contextual factors—such as gender, ethnicity, and residence in a particular community—interact with one another and affect students' developing self-efficacy are yet to be determined and fully understood. The current study involved 202 participants in grades 7 (n=120) and 10 (n = 82), from a public secondary school in a rural, predominantly Native Hawaiian community in the State of Hawai'i. Participants completed two subscales from Bandura's (1989b) Children's Multidimensional Self-Efficacy Scales and answered open-ended questions about their grades in school, their career expectations, and how they thought they were viewed by parents, peers, and teachers. In general, students in this study reported lower perceived self-efficacy for academic achievement than has been reported for students' on the mainland. Multiple regression analysis also indicated that being male and being Native Hawaiian was associated with lower self-efficacy for self-regulated learning. We suggest that the sociocultural context provides different information to Native Hawaiian boys and girls regarding their performances at home and school, that may influence the boys to report lower self-efficacy for self-regulated learning.

Culture, Gender, and the Development of

Perceived Academic Self-Efficacy Among Hawaiian Adolescents

Social cognitive theory (Bandura, 1986; 1989a; 1995; Dweck, 1986) suggests that individuals' beliefs about their efficacy in specific contexts influence their motivation in those settings. For example, students who strongly believe that they can regulate and master academic tasks will set high academic goals and will be motivated to work toward those goals. This in turn affects their achievement. A review of the literature on perceived academic self-efficacy and student learning concluded that perceived self-efficacy affects students' "aspirations, level of interest in intellectual pursuits, academic accomplishments, and how well they prepare themselves for different occupational careers" (Bandura, 1995, p. 17). A meta-analysis of 39 studies also lent support for the relationship between self-efficacy and academic performance and persistence (Multon, Brown, & Lent, 1991). Bandura and his colleagues (Bandura, 1989b; Zimmerman, Bandura, & Martinez-Pons, 1992) distinguished between perceived self-efficacy related to achievement in specific subject areas (e.g., math or science) and perceived self-efficacy related to self-regulated learning. The latter refers to the extent to which students feel that they can be successful on more general achievement-related tasks that generalize across academic domains.

Rather than viewing academic ability as a "fixed attribute," the social cognitive perspective implies that abilities are more flexible capacities which are subject to social influences (Bandura, 1995). Perceived self-efficacy develops from and is shaped by the sociocultural context (Bandura, 1993; Oettingen, 1995). The social context provides evaluative information about one's performances, models for standards of performance, and information about the tasks that are valued in a particular community (Oettingen, 1995).

For example, traditional Native Hawaiian culture emphasized observational learning so that adults and other more experienced members of that culture encouraged observational skills in the learning process and discouraged overt questioning (Pukui, Haertig, & Lee, 1972; Tharp & Gallimore, 1988). Skilled observers in a more traditional Hawaiian community might be considered those one should emulate, and folk heroes might also embody such characteristics.

The specific ways in which multiple social contextual factors—such as gender, ethnicity, and residence in a particular community—interact with one another and affect students' developing self-efficacy are yet to be determined and fully understood. For example, the literature on gender and perceived self-efficacy indicates that female students tend to display lower perceived academic self-efficacy than males, and this is especially those related to male dominated subjects and occupations (e.g., math and science in the U. S.) (Eccles, 1994). Consequently, lower perceived self-efficacy affects females' achievement in those domains and career decisions (Betz & Hackett, 1981; 1983; Eccles, 1994; Randhawa, Beamer, Lundberg, 1993). However, few studies have attempted to investigate the influence of multiple sociocultural factors (e.g., both ethnicity and gender) on students' perceived self-efficacy. With a clearer understanding of these issues, educators might be better prepared to provide effective information to students (e.g., various gender, ethnic, and local community models) to influence students' academic self-efficacy and achievement.

Native Hawaiians and Education

There are many indicators that our schools are not adequately serving the needs of Native Hawaiian students. Native Hawaiians are among the lowest scoring minorities in the nation on standardized achievement tests.

They are also over-represented in special education and under-represented in higher education (Office of Hawaiian Affairs, 1994). Many scholars point to the ways that educational institutions perpetuate societal inequities among various groups of people (e.g., Eckert, 1989; Oakes, 1985). This is often the case for indigenous people, like American Indians, Native Hawaiians, and indigenous people of the Pacific Islands, who were formerly colonized by another group (Ogbu, 1991; Watson-Gegeo & Gegeo, 1992).

It is possible that when societal inequities are mirrored and reinforced by school policy and other subtle (and not so subtle) discriminatory attitudes, some minority members may internalize these negative attitudes about their own group. Fordham (1988) and Ogbu (1991) explain that some minority group members disassociate themselves from their ethnic or racial group as a strategy to succeed within an arena dominated by the majority group. Fordham (1988, 1991) labeled this disassociation, when observed among some high achieving African-American students, as an attempt to achieve a "raceless" persona. Whether disassociation also implies that the students have internalized negative attitudes toward their ethnic or racial group is not clear. In other cases, minority students resist the dominant position and attitudes, and reinforce their own group's identity and status (D'Amato, 1988; Ogbu, 1991).

Similar to Ogbu's (1991) findings among African American students, D'Amato (1988) found that Native Hawaiian elementary school students displayed efforts to resist the authority of their teacher in order to reinforce their group identity and solidarity. Playful misbehavior initiated by one student cued similar behavior in others, and eventually resulted in unified opposition against the teacher. In 1972, Kinloch and Borders found that although Native Hawaiians scored lower on socioeconomic indicators than

other ethnic groups in the State, Hawaiian children maintained positive attitudes about their own group. A more recent study in Hawai'i (Nakagawa, Murdoch, & Yamauchi, 1995) also indicated that overall, Native Hawaiian elementary school children did not display negative attitudes about their own ethnic group. Neither study, however, investigated the students' perceived self-efficacy or school achievement. Further, both studies were also conducted among elementary school-aged participants: It is not clear whether similar results would be derived for older students.

Self-Efficacy and Adolescence

The study of perceived self-efficacy during adolescence may be particularly important because adolescence is a period of life during which perceptions of competence are typically emphasized (Ehrenberg, Cox, & Koopman, 1991). Further, investigations of adolescent academic self-efficacy may be warranted given the relationship between academic self-efficacy and adolescent depression. Ehrenberg and her colleagues (Ehrenberg, et al., 1991) found that perceived academic self-efficacy was related more to adolescent depression than were other forms of self-efficacy (general self-efficacy, physical self-efficacy, and social self-efficacy). This may indicate that academic self-efficacy plays an important role in the development of adolescents' well-being. Given that suicide is the second highest cause of death among adolescents in Hawai'i (Pateman, Saka, & Lai, 1997) and more Native Hawaiian adolescents report suicide attempts than do youth from other ethnic groups in the State (Coalition for School Health Service Centers, 1994), the study of academic self-efficacy in this context is particularly warranted.

The purpose of the current study is to investigate some of the sociocultural influences on perceived academic self-efficacy and related attitudes toward education among adolescents in a rural, predominantly

Native Hawaiian community. We considered the extent to which ethnicity, gender, grade level, and length of residence in the community were associated with students' perceived academic self-efficacy. We were also interested in students' career expectations and the perceptions they had about the way significant others (parents, peers, and teachers) thought about them. We studied students in grades 7 and 10, in an attempt to investigate potential developmental patterns related to social contextual issues during adolescence.

Method

Participants

Participants included 202 7th grade (n = 120) and 10th grade (n = 82) students from a small rural public high school in Hawai'i. Participation was voluntary and the entire population of 7th and 10th graders was asked to participate. Participants' gender was equally divided between male and female. Participants' ethnicity was as follows: 66% Native Hawaiian and Part-Hawaiian, 9% Filipino-American, 8% European-American, 5% Japanese-American, and 1% Samoan-American, 9% Other.

Procedures

Students completed two subscales from the *Children's Multidimensional Self-Efficacy Scales* (Bandura, 1989b): *Self-efficacy for Self Regulated Learning* and *Self-efficacy for Academic Achievement*. The first scale measured students' perceived self-efficacy on various self-regulated learning tasks (e.g., "How well can you study when there are other interesting things to do?"). The *Self-Efficacy for Academic Achievement Scale* measured students' perceived self-efficacy in nine academic subject areas: mathematics, algebra, science, biology, reading and writing language skills, computer use, foreign language, social studies, and English grammar. For each of the items, students rated their abilities on a 7-point likert scale.

Students were asked to report the grade (A+ to F) that characterized their general performance in school and answered an open-ended question about their career expectations, "What job do you expect to have when you're an adult?" In addition, students responded to three open-ended questions about the kind of person they thought their parents, friends, and teachers would describe them to be. Students were asked, a) "What two words do you think best describe the kind of person your parents think you are?" b) "What two words do you think best describe the kind of person your friends think you are?" and c) "What two words do you think best describe the kind of person your teachers think you are?"

Students' completed the questionnaires in class during a regular class period. After preliminary data analysis was conducted, we returned to the school to report our findings and to discuss possible interpretations with the students. Students' feedback during these sessions was also considered in our analyses.

Results and Discussion

Comparisons with data from the U. S. Mainland

We compared students' responses on the self-efficacy scales to the results of a similar study conducted on the U. S. mainland (Zimmerman, et al., 1992). The students in the current study reported lower perceived self-efficacy for academic achievement in all academic domains, except biology. It may be that the rural island lifestyle of the students in the current study has made them more familiar and comfortable with plants and animals of both the land and sea. When we discussed this with the students, they noted that biology was a subject that they tended to enjoy and find meaningful to their lives on the island.

When we asked the students to explain why their scores were lower than those from the mainland, some of the students mentioned that they didn't like to brag. People in Hawaii, (and in particular, a small rural community in Hawai'i) are more collectivistic than people on the mainland (Ceppi, 1997). Previous research indicates that those from more collectivist cultural communities tend to downplay their personal accomplishments and abilities, when interacting with other members of their own community (Rhodes, 1989; Swisher & Deyhle, 1987). This tendency to avoid appearing better than others may have influenced the students' scoring lower than their mainland counterparts.

In general, students in the State of Hawai'i rank lower in standardized tests of achievement than students in other states, and students in the public schools in Hawai'i are often characterized in the popular media as achieving less than those from private institutions (Infante, 1992; Lai, Saka, & Chin-Chance, 1994). It is also possible that the students in the current study internalized these perspectives and rated their abilities lower.

Ethnic and Gender Differences

Multiple regression analysis. Multiple regression analysis was conducted for gender, ethnicity, years of residence on the island, and grade level predicting students' perceived self-efficacy, while controlling for students' reported grades. The analyses indicated a significant effect for these variables predicting students' perceived self-efficacy for self-regulated learning tasks, ($R^2 = .07$, $F=3.35$, $p < .01$, $df=4, 187$), but not regarding self-efficacy for academic achievement. Residual analysis of the data on self-efficacy for self regulated learning indicated that gender and ethnicity contributed the most to the variance in perceived self-efficacy. More specifically, being male and being

Native Hawaiian was associated with lower self-efficacy for self-regulated learning.

Analysis of the open-ended questions. We analyzed the open-ended questions to further explore the relationship between gender (being male), ethnicity (being Native Hawaiian), and having lower self-efficacy for self-regulated learning. We were interested in whether there were patterns in the way Native Hawaiian students responded to the questions, that varied by both gender and self-efficacy scores. Students were divided into three groups, based on the latter measure, a) students that scored "high," one standard deviation or more above the mean of the entire sample; b) students that scored "low," one standard deviation or more below the mean; and c) students that scored "average," within one standard deviation above or below the mean. We then compared the responses of Native Hawaiian male and female students in both the high and low groups. The average group was not considered in this analysis because we were interested in extreme differences between students.

One of the open-ended questions asked students to consider the kind of job they expected after high school. Most of the responses from the high efficacy Native Hawaiian students indicated that they expected professional jobs (79%). Some of the female low efficacy students also expected professional jobs (43%), but none of the low efficacy boys did. Twenty nine percent of the low efficacy boys were undecided about prospective careers, and of the others, 50% expected skilled laborer positions (e.g., stone mason).

Three questions asked students about the kind of person they thought their parents, friends, and teachers perceived them to be. We clustered the responses from each group (high efficacy female, low efficacy female, high efficacy male, low efficacy male) to be better able to understand the general

perceptions these Native Hawaiian groups had about the way significant others viewed them. For example, we clustered the descriptors "friendly/outgoing," "funny," and "happy," "good to hang with" because they all appeared to have to do with having an outgoing personality that was pleasant to be around. Although we do not believe that we can ever know exactly what the students meant by these words, we felt that this content analysis (clustering) allowed us to get a better sense of the data overall.

A comparison of the clustered descriptors indicated that there were general differences in the way high and low efficacy Native Hawaiian students believed other people perceive them to be. Although some of the low efficacy students reported that their parents, peers, and teachers thought of them as "smart" or "intelligent," these characteristics were mentioned less often than they were by the high efficacy group. In general, the high efficacy group (both boys and girls) responded with words that denoted positive images of themselves. Only a few words that they listed might be considered negative (e.g., picky, weird). By contrast, students in the low efficacy group reported descriptors that could be considered negative (e.g., troublesome, bad, stupid). A closer look at the descriptors given by Native Hawaiian students in the low efficacy group indicated that there were differences in the responses from boys and girls. The male students appeared to respond with descriptors that were more negative than the girls.

Why Do Native Hawaiian Boys Have Lower Self-Efficacy?

Recent research on gender differences in mathematics achievement among students in Hawai'i suggests that unlike the rest of the nation, girls in Hawai'i out-perform their male counterparts on standardized tests of achievement (Brandon, Jordan, & Higa, 1995). Research on social decision making among Native Hawaiian youth also suggested gender patterns that

are unlike those found among youth on the U. S. mainland (Daniels, D'Andrea, & Heck, 1995). Brandon and his colleagues suggest that one reason why Native Hawaiian girls might fair better in school than boys is related to gender differences regarding culturally derived "rationales for compliance and achievement" (Brandon et al., 1995, p. 104). They point to sibling group and kinship patterns of traditional Hawaiian families that continue to exist today.

For many Native Hawaiian children, the sibling group is an important structure that mediates their daily routine. Chores and other household tasks are often structured by the group, whose leader is an older sibling, often the eldest girl. Girls and women also serve to bring family members together in their roles in family kinship networks. Brandon et al. (1995) suggest that girls' roles both in sibling groups and kinship networks are compatible with the expectations of students in school, especially regarding interactions with adults (teachers), "...in some classrooms, one girl appears to take on the position of chief helper to the teacher echoing the role of mother's helper" (p. 104).

Different from the experiences of girls, Brandon et al. (1995) suggest that Native Hawaiian boys develop strong bonds with close-age, same-sex peers that compete with the demands of their family and kinship network. According to D'Amato (1988), Native Hawaiian boys and girls in school form peer groups that are often characterized by playful contention, sometimes as a form of resistance to the teacher, but also in forms of peer group rivalry. Some of the low self-efficacy Native Hawaiian students in this study used the words "clowning" and "kolohe" (rascal) to describe how other people viewed them. This may be part of the contentious behavior that is expected by other Hawaiians, but often misunderstood by teachers (D'Amato, 1988). Although

rivalry in female peer groups develops around girls trying to dominate each other for authority within the group, rivalry with boys is exhibited as contention between groups (D'Amato, 1988). Brandon and his colleagues (1995) explain that contentious behavior among Native Hawaiian boys is more disruptive to teachers and classroom activities than that of girls. Further, as older girls are pulled more to kinship roles, the importance of school-based peer groups continue to be important for older boys, "The values and interactions of the peer group may have much more appeal for boys than anything the traditionally organized school usually offers in the way of situational rationales for compliance" (Brandon et al., 1995, p. 105).

Applying Brandon et al.'s (1995) analysis to social cognitive theory (Bandura, 1986; 1995), we suggest that the sociocultural context provides different information to Native Hawaiian boys and girls regarding their performances at home and school and about their roles in the community. School related tasks, especially those regarding self-regulated learning, are more similar to the tasks asked of girls at home (i.e., to organize themselves and siblings to get work done and to interact with adults in ways that promote group cohesion). Native Hawaiian boys, on the other hand, may be acting in ways at school that resist authority and reinforce peer group solidarity.

Different experiences lead to different information from others in the community, and in this case, teachers in particular. Different feedback from teachers and peers, shape students' ideas about how successful they will be on school-related tasks. Educators who work with Native Hawaiian children, and boys in particular, may want to reconsider the overt and subtle evaluative messages they give to these children regarding students' behavior and achievement in school. Reorganizing school activities to accommodate cultural structures, such as peer groups, might also serve to reinforce

Hawaiian and other minority children's more positive ideas about themselves as students (D'Amato, 1988; Brandon, et al., 1995; Tharp & Gallimore, 1988). School structures that better accommodate students' cultural tendencies and preferences would likely lead to more active and positive participation in school. This in turn, would influence more favorable feedback from teachers and other school members, that would increase students' perceived academic self-efficacy.

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